

### Abstract

A movable platform is provided for use with a surface profiling system. The platform eliminates all errors associated with wheel inconsistencies. A frame is supported  
5 above a surface by, among other supports, three supports arranged in a linear alignment that defines a direction of travel for the frame. The three supports are defined by a front support, a rear support and a center support centered between the front support and rear support. The center  
10 support is a floating support capable of substantially vertical movement. At least two of the front support, rear support and center support are wheels configured to roll in the direction of travel defined by the three supports that are linearly aligned. These wheels are coupled to one another for  
15 synchronizing rolling movement thereof on the surface.